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Citizens' Bulletin

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The Connecticut Department of Environmental Protection

Our Natural Heritage

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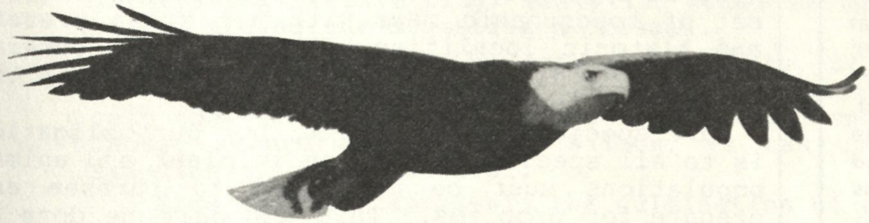
"Where is the thicket?
Where is the eagle?"



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The Wider View

Preserving Our Natural Heritage

By Leslie J. Mehrhoff State Biologist,
Connecticut Geological and Natural History Survey

In 1903, General Statute 24-462 mandated the creation of the Connecticut Geological and Natural History Survey (CG&NHS) in order to inventory the plant, animal, and mineral resources of our state. This was originally done by professional and qualified amateur biologists in Connecticut. The resulting inventories of the state's diverse natural heritage were distributed in the form of bulletins by the CG&NHS.

In 1972, the CG&NHS was brought under the authority of DEP's newly-formed Natural Resources Center. In 1974, the Survey hired its first full-time biologist. Now there is a staff of three full- and part-time biologists. In addition to the Survey's original responsiblity, it is now also concerned with the preservation of Connecticut's natural heritage.

The concept of natural diversity is very broad. It refers to all plants and animals, native or alien, which occur in a given area. An understanding of geology, or habitat, is also involved.

Biologists now understand that the key to protecting a species is to protect its habitat. In Connecticut, where development has been intensive, this is not always easy.

Inventorying Connecticut's rare species is an important part of the Survey's work. Since 1975, Survey biologists, with the assistance of other DEP units, conservation organizations, and concerned citizens, have scoured the state for rare plants or animals. We are able to get a sense of which species have become rare by comparing present conditions with records from museums and libraries. Frequently, a species suspected of being rare is in fact quite common. Sometimes a species can no longer be located in the wild in Connecticut. Many times only one or two populations of a rare species can be found across the state. Although habitat degradation is the primary problem, collection from the wild and natural changes can also force a species out of an area.

The results are recorded in the Connecticut Natural Diversity Data Base, a computer-assisted set of topographic maps with all known present and historic localities of species of concern. Unique natural habitats are also included in the Survey's files and maps.

Rare species are important, but our obligation is to all species. Variation in plant and animal populations must be monitored to foresee and prepare for problems. This can only be done if our inventories are complete and up to date. In that way we can begin to meet our responsibility to protect our state's rich natural heritage so that it will be here for future generations. ■

NRC

Whalebone Creek: a unique freshwater habitat of pickerel weed and Bullhead lily, which also receives tidal influence from the ocean.

The Natural Diversity Conference

Protecting endangered species and endangered habitats

By Martha Kelly, Environmental Intern

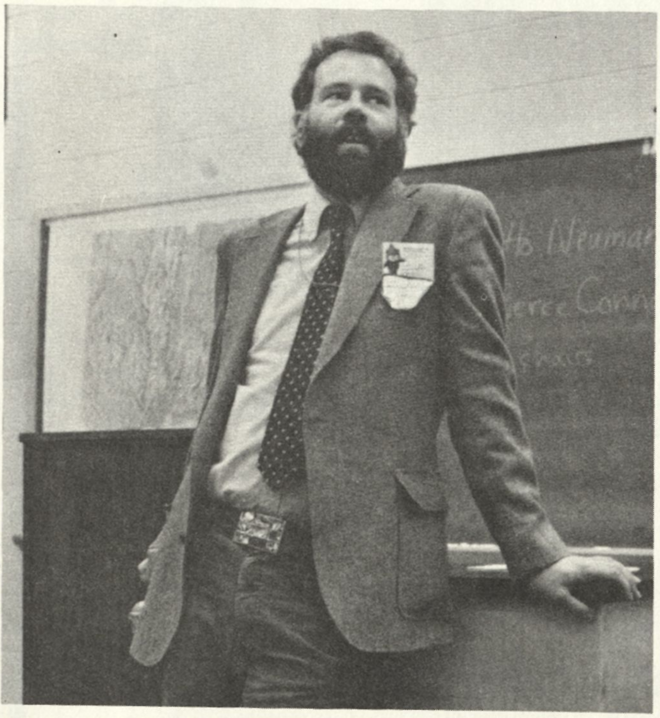
Harvard biologist Edmund Wilson has observed that a handful of soil and decayed leaves contains "a miniature wilderness that would take almost forever to explore." In addition to the dozens of insects, mites, and worms we might expect to find in that handful of soil, it is also likely to contain a million fungi and 10 million bacteria. Although we may not immediately recognize their contributions to life as we know it, these organisms are not necessarily our enemies. The lower forms of life play essential roles in the production of oxygen and in aiding our digestive processes.

Our knowledge of the natural world is, at best, incomplete. Of the possibly 20 million species which biologists think exist, we have only identified and given names to about one and a half million. And of those, according to Edmund Wilson, we can claim a detailed understanding of a mere handful.

Each species represents the culmination of an evolutionary process which spans millions of years. Each species possesses millions, or even billions, of units of genetically-programmed biologic information. As the chemical and biological sciences move into the age of genetic engineering, a study of the diversity of life reveals an area of virtually infinite possibilities.

The Benefits

The benefits of natural diversity in the field of agronomy are easy to recognize. Of the total of some 75,000 edible plants, only about 7,000 are regularly consumed by humans. Man has come to depend, to a degree which makes us extremely vulnerable to disaster, on about 15 highly-domesticated varieties of edible plants. Periodic infusions of fresh genetic material, usually from wild relatives of domesticated plants, have made possible remarkable advances in agriculture, sometimes called "the green revolution." Yet, this is a mixed blessing; in 1970, as a result of the tendency of farmers to plant the few most productive corn varieties, 20 percent of the U.S. corn crop was lost to the leaf blight, and in some southern states, half the crop was lost. The same sort of in-breeding that made hemophilia common in the European monarchies of the 19th Century caused devastation to the corn crop. Cross-breeding with a wild Mexican corn ancestor produced a new, blight-resistant strain.



Martha Kelly photos

State biologist Leslie J. Mehrhoff addresses scientists and researchers at Natural Diversity Conference.

Very recently, a few acres of another primitive corn relative, Zea diploperennis, were discovered in a remote Mexican forest. This plant's remarkable quality is that it is able to propagate itself by rhizomes, or underground stems, making it a perennial. Researchers have crossed this plant with modern corn, producing a perennial hybrid that may save American farmers millions that would have been used for annual plowing and planting. Such research is the latest development in man's domestication of the corn plant, a process which began hundreds and possibly thousands of years ago when the American Indian first coaxed this productive plant from the wild grass that was its ancestor.

The medicinal use of plants and animals is equally ancient and widespread, and yet discoveries of enormous importance are made each year. An extract of the rosy periwinkle, a plant native to Madagascar, has been demonstrated to raise the chances of remission in children stricken with leukemia from 20 percent to 80 percent. There are many similar examples which demonstrate that human interests are inextricably linked with the continued existence of other species. These species represent an untapped chemical treasure. And yet, today, as a result of human population and human activities, species are becoming extinct at a rate which biologists estimate to be many times that of previous centuries.

Natural Diversity Conference at Trinity College

How is the issue of natural diversity perceived and responded to in the state of Connecticut? That was the question addressed by a distingished group of scientists who gathered at Trinity College in Hartford on March 30, 1985. The purpose of the conference was to discuss the latest findings on the state's natural heritage and to suggest ways in which that heritage may be preserved. Sponsored by the Connecticut Geological and Natural History Survey, the conference made it plain that despite its small land area, Connecticut contains a surprising diversity of landscapes and life-forms, which lead Charles L. Remington, of Yale's Peabody Museum, to describe the state as an "ecological crossroads."

In his keynote presentation, James A. Slater, of the University of Connecticut, focused on the need for thorough inventories of the state's fauna and flora. Drawing a parallel to the business world, he pointed out the importance of reliable inventories as a tool in the intelligent managment of natural resources. Only with adequate knowledge is it possible to set correct priorities and make intelligent management choices.

The need to assemble comprehensive information is, according to Slater, urgent. "If we know, we can act meaningfully," he said. "If we don't see that what must be done is done, then it will not be done, and we may never again, in a later generation, have the chance that exists today."

An Approach to Future Management

State Biologist Leslie Mehrhoff of the DEP echoed and expanded on these concerns. He stated that a fundamental purpose of the conference was not simply to make judgements and impose classifications such as "endangered" or "threatened," but to encourage an understanding of what actually exists in the state so that sound, logical decisions may be made on future management and development.

The conference continued with presentations by specialists in birds, mammals, amphibians and reptiles, fish, and insects. These scientists reviewed their latest field work, reporting on population increases or decreases in particular species, and the causes thought to be at work.

Several themes emerged over and over in the talks. Most frequent was the disappearance of habitat. As man has developed available land area, the habitat necessary to the survival of many species has been restricted, or has even disappeared. The exact habitat requirements of a species may not be obvious; while many species of birds can survive in the scanty tree stands of developed areas, other species, such as the Northern warbler, require extensive stands of mature (more than 80 years old) forest. The rebirth of the timber industry in Connecticut may make survival difficult for these birds, who are already confined to the northwestern portion of the state.

Mehrhoff's discussion included insights into the diversity of habitats in Connecticut, a factor which largely explains why so many species are rare in Connecticut although they are common elsewhere. Connecticut is close to the terminal moraine of the glacier, and it is located at the meeting point of the Northern and Southern forests, which are of differing compositions. The fact that the rarity of a species is regional does not lessen its importance. Rather, populations near the distributional limits of a species are of particular scientific interest, reports Mehrhoff, because they often display important genetic variations from more centrally located populations.

Protected Species in Connecticut

Six species that are protected by federal law are present in Connecticut. One of these, an orchid known as the small whorled pogonia, was located just last year. Wild flowers, and in particular the orchids, have suffered as a result of collection by human admirers. Nine orchids are listed in the newly-released listing, "Connecticut Species of Particular Concern," as not having been seen in the state within the past 40 years.

Even a tiny plant without known economic or medical uses may provide valuable scientific knowledge. This was the lesson offered by T. R. Webster and the Selaginella eclipes. This spike-moss, a tiny moss-like plant, is believed to be a natural and locally-occuring hybrid which offers scientists an opportunity to study the hybridization process in the wild.

Trinity College in Hartford, where scientists and researchers met to discuss the challenge of preserving our natural heritage.

Mammal diversity in the state has declined dramatically in the centuries since settlement by man, and is now described by Robert Dubos as being "in flux." Those species which were prized for their fur, or seen as a threat to human habitation, have been hunted virtually to extinction, while species with no economic value have been largely unaffected by man's presence. Dubos cautioned the audience that it is "not up to us to judge, but to study the causes of rarity."

Rare and Endangered Fish and Birds

Study of the fish of Connecticut has been complicated by the need to sort out introduced from naturally-occuring species. Walter Whitworth, Professor of Fisheries at The University of Connecticut, listed six freshwater species which are remnants of early attempts to stock them in Connecticut waterways. Most native freshwater species are common; due to the glaciation process, many waterways are interconnected. The most notable rarity is the shortnose sturgeon, a species protected by federal regulation. This large, bottom-dwelling fish is highly susceptible to water pollution.

Many of the speakers reported populations which fluctuate in a cyclical fashion; the reasons are often unknown. This phenomenon is one of the reasons advanced for the need to do systematic periodic inventories of the populations of individual species. Noble Proctor, of Southern Connecticut State University, cited the barn owl as one species whose ebb and resurgence is inadequately understood. This rare species has been seen in increasing numbers since the early 1970s, although it is still limited to a handful of individuals in the state.

Proctor reported on several examples of successful wildlife management. The osprey population, for example, has responded favorably to the installation of poles suitable for nest-building on protected beaches. The construction on Faulkner Island of an artificial beach site featuring grass control and discarded auto tires has protected the nests of the rare roseate tern from predators and saved that species from disappearance in Connecticut.

Proctor's final word on Connecticut's rare birds was a hopeful one: "We have within our grasp the knowledge of species and the research capabilities to give habitats the protection needed. They have, I think, an optimistic future."

The Natural Diversity Data Base

DEP biologist Nancy Murray, with David Warren of The Nature Conservancy, discussed strategies for the protection of Connecticut's species and their habitats. Murray explained the operation of the Connecticut Natural Diversity Data Base and solicited contributions to it. (For a more detailed description of the Data Base, please see page 12.)

Leslie Mehrhoff raised the point that Connecticut has no comprehensive law to protect its endangered species other than those which are federally listed. He reported that all too often sites are destroyed because no one except a biologist was aware of the site's significance. Murray spoke of the high level of cooperation which this voluntary program has received from both private and governmental developers and planners.

Murray invited participants to review and comment upon the list of plants and animals recently prepared by the Survey's Natural Diversity Data Base. This list is called "Connecticut Species of Special Concern."

David Warren of the Conservancy praised the contribution made by the Connecticut Natural Diversity Data Base to intelligent land use, stressing its role in promoting an information exchange "before the bulldozers are on the site." This may eliminate the occurrance of confrontations between environmentalists and developers by allowing for an exchange of information when it may be best put to use, during the planning stages.

The Future

Certainly a conclusion expressed by the scientists and experts taking part in the Natural Diversity Conference is that life forms and their habitats have been negatively, and iN some cases irrevocably, affected by long periods of uninformed human action. The task before us now, both in terms of biological groundwork and public education, is a vast one. On the other hand, the possibility for cooperative and appropriate action is here. And man, who is capable of recognizing the interdependence of all creatures on earth, is the most adaptable of species. ■

NRC

Beaver Swamp, Bigelow Brook: A remote stream, converted by beaver to a swamp, offers the kind of nesting sites preferred by the great blue heron. The islands and large dead trees offer protection from predators.

DEP Wildlife Information Series

Leonard Lee Rue III photos

The mink is fairly fast and agile on land and will put up a fierce fight when confronted by an enemy.

The Mink in Connecticut

General

The mink (Mustela vison), a semi-aquatic animal, has always been fairly common in Connecticut and throughout New England. It belongs to the family Mustelidae, which also includes the weasel, marten, fisher, otter, and skunk. The mink has an elongated, slender body from 20 to 30 inches in length, including the tail. Its bushy tail makes up seven to 10 inches of the overall length. It has short legs, a long, thick, muscular neck, and a flattened, tapered head. The undercoat is dense and oily and is covered by a rich, dark brown fur that is soft and shiny. White markings are found on the chin and occasionally on the chest.

Biology

Mating takes place any time between late February and early April. The mink is promiscuous, meaning that both males and females may mate with several individuals. During the mating season, males may fight viciously, sometimes to the death, when competing for a female. The gestation period is normally 42 days, but may range from 40 to 70 days, depending upon the age of the female. Also, if the animals mate early in the breeding season, gestation may be longer. The young are born in April or May. As is characteristic of the Mustelid family, delayed implantation prevents the development of the embryo until 30 to 32 days before birth. Mink have one litter per year, with up to 10 kits in a litter; three to four kits is the average litter size. The young are born blind and helpless, with white fuzz covering their bodies. They can open their eyes at four weeks of age and are weaned at about five weeks. The family unit disperses in late August, and individuals remain solitary until the next breeding season. A young mink can mate before it is one year old. The mink can live up to 10 years in captivity, but its life span in the wild is probably three to six years.

A semi-aquatic animal, the mink has always been common throughout New England.

The mink is a tireless persistent hunter, which preys upon a large variety of animals. Aquatic prey includes muskrats, fish, frogs, crayfish, and ducks. It is also an effective land predator and will hunt squirrels, rabbits, mice, snakes, birds and their eggs, and occasionally domestic fowl. A mink may kill more than it can eat at one time, but often caches the surplus for periods when hunting is less productive. When food is scarce in an area, mink will travel long distances to find a more bountiful habitat.

A semi-aquatic furbearer, the mink is almost always found near water. It lives along the banks of streams and rivers or the shores of lakes and marshes. It is adaptable and is often found living close to residential areas. Homes are made in bank dens which are dug by the mink or taken over from another animal.

The mink is a tireless, persistent hunter, which preys upon a large variety of animals.

Muskrat or beaver lodges, or hollow stumps, logs, or trees are all readily used for shelter. The mink prefers brushy, forested areas containing thick cover.

The mink is chiefly nocturnal, but is sometimes seen during the day. It is an excellent swimmer, aided by its partially-webbed feet; it can dive to depths of up to 18 feet and can travel up to 100 feet underwater. The mink is fairly fast and agile on land and will put up a fierce fight when confronted by an enemy. The great horned owl, bobcat, or fox may prey upon mink, as may otter and even another mink.

A strong, foul-smelling, liquid musk is produced by the mink's anal scent glands and is emmitted when the animal is excited or angered. It is similar to a skunk's odor, but it cannot be sprayed. The odor is used as a communication device more than as a defense mechanism. Mink vocalizations include screams, barks, purrs, and hisses.

Benefits

The mink is an important predator and helps to keep rodent populations in check. The fur is quite valuable and is highly desirable for its durability and beauty.

Management of Nuisances

The mink is generally not considered a nuisance animal, although it may occasionally raid a poultry house or rabbit hutch. Securing these structures by eliminating any small entrance holes should prevent most problems with mink. Like the weasel, the mink generally kills by biting the victim at the base of the skull. The back of the neck and head are usually consumed.

References and Further Reading

Burt, W. H., and Grossenheider, R. P., 1976. A field guide to the mammals. Houghton Mifflin Co., Boston.

Godin, A. J., 1977. An animal damage identification guide for Massachusetts. Univ. of Mass. Coop. Ext. Serv. Booklet.

Wildlife Bureau informational Series No. TA-II.

The Technical Assistance Informational Series is 75 percent funded by Federal Aid to Wildlife Restoration -- the Pittman-Robertson (PR) Program. The PR Program provides funding through an excise tax on the sale of sporting firearms, ammunition, and archery equipment. The remaining 25 percent of the funding is matched by the Connecticut Wildlife Bureau. ■

West Hartford's Westmoor Park

Where the sun is always shining

Nosey, the donkey, poses at Westmoor Park.

Text and Photos by Este Stifel,
Environmental Intern

Nestled comfortably, surprisingly, in the middle of suburban West Hartford, there are 50 acres of farmland, preserved and maintained largely through the dedication and energy of one man, Park Naturalist Joe Pratt. Westmoor Park Nature Center is a demonstration farm and vegetable garden, a nature preserve, museum, outdoor laboratory, and more.

Literally just minutes away from downtown West Hartford and Hartford, there is a Shangri-la quality to Westmoor Park. You just don't expect to find such a lovely and idyllic spot so close to the urban environment. Westmoor Park is one of the city's more pleasant surprises.

The main building, its entrance framed by azaleas, contains a library, exhibits, new offices, and meeting rooms. More recently, a greenhouse has been added, an adjunct to the horticultural work performed at the Center. Twenty-four acres of the Center have been

There is a Shangri-la quality to Westmoor Park

designated as the Nature Preserve, a fascinating nature walk with a comprehensive guidebook created specifically for it by Pratt.

Away from the pandemonium of urban traffic, the sights, sounds, and smells of Westmoor Park are like a deep, rich symphony. The air is full with the smells of the earth, clean, healthy, organic smells. The sounds of the ducks quacking, the horse neighing, the chickens, the donkey, are all soft and gentle to the ear.

All of this is certainly reason enough to visit Westmoor Park. However, the main focus and direction of the park may offer an even more compelling reason. The primary purpose of the Center is to promote and encourage a close feeling for the natural world as well as to provide a basic introduction to animal husbandry.

Many of the activities offered are designed for children from pre-school to fourth grade. One of the joys of a visit to the Center is the opportunity to watch the children's faces as they are confronted at eye-level by the Center's large goose. Almost invariably, it is the child who blinks first. Normal relations are established, however, when both parties realize that each is curious and friendly.

Among other very popular attractions at the Center are a billy goat and two nanny goats with kids. The billy goat, taller than a large dog, is very gentle and likes nothing better than to have his head scratched and his horns rubbed. You can spend time watching charming, knock-kneed lambs at play, until they notice you and come to the fence where they spend time watching you at play.

Ashley and Nosey share a field with the billy goat. Ashley is an Arabian quarter-horse mixture and Nosey is a Sicilian donkey. They love carrots and apple slices, although visitors are advised not to be overly generous since both horse and donkey have been forced to watch their weight. Nosey the donkey is less than four feet tall, but very strong. He can support the weight of a full-grown man, or several children, with ease.

Westmoor Park offers a full schedule of classes, from "Pre-school Nature Discovery," a class which involves teaching through outdoor games, to "Friday Farmer," a class which allows children in grades 1-4 direct exposure to animals. In this way, children have fun, help with the chores, and learn about the animals.

There are classes offered on horticulture, crafts, geology, and insect study. Some classes, such as "Moms 'n' Tots," involve a parent in the learning process. While Westmoor Park is an ideal place for children and their parents, it is also a place for anyone with a free hour or two and the need for a little quiet and relaxation.

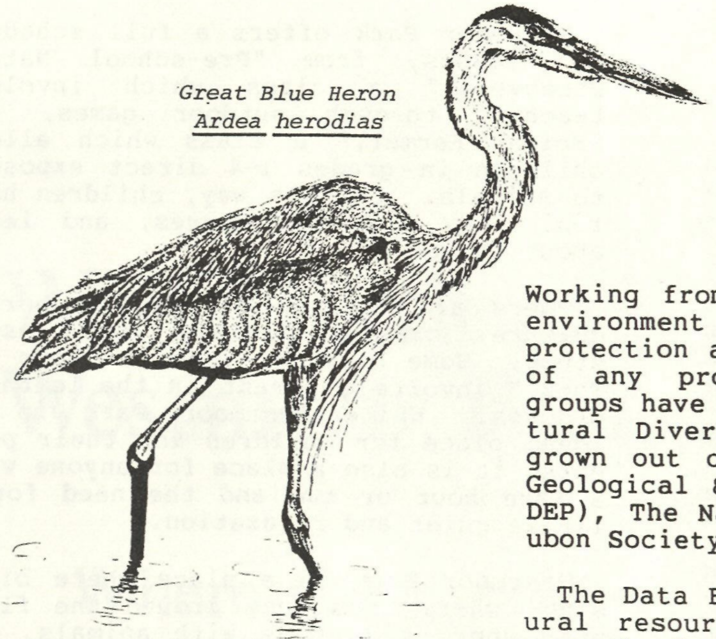
Westmoor Park is a place where birds sing, where bees buzz around the flowers, where kids play with animals, and where, you get the feeling, the sun is always shining. It's nice there.

A brochure containing details in regard to classes and activities offered at Westmoor Park Nature Center is issued four times a year. For further information, please contact Joe Pratt, Park Naturalist, 119 Flagg Road, West Hartford 06117: phone 232-1134. ■

Lamb observing visitors to Westmoor Park.

The Natural Di

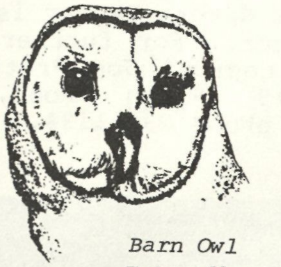
By Martha Kelly,
Illustrations b



Great Blue Heron
Ardea herodias

Working from the premise that a healthy and varied environment is an important state resource, worthy of protection and consideration in the planning process of any proposed development, three conservation groups have cooperated to develop the Connecticut Natural Diversity Data Base. This new project has grown out of the joint efforts of the Connecticut Geological & Natural History Survey (a division of DEP), The Nature Conservancy, and the National Audubon Society.

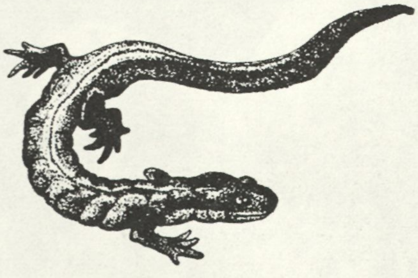
The Data Base is a computerized storehouse of natural resource information which has been gathered over the last 80 years of the Geological Survey's existence. Information has been gleaned from academic sources, museums, and naturalists, and is regularly updated through ongoing field work. The Data Base is the product of an intensive effort over the last 10 years; it has been designed to centralize and make accessible the work of many researchers on rare and endangered species. Its creators hope that by making available information on populations of rare or endangered species and habitats critical to their survival, both private and governmental developers will be able to make better decisions in regard to land and water use.



Barn Owl
Tyto alba

The Data Base includes a wide range of basic environmental information: basic geological features, hydrologic data for all locations, and the locations of plant and animal populations of rare and endangered species. The information is stored in at least two forms: as an encoded entry on a U.S.G.S. topographical map and in the computerized version.

The information which the Data Base gives out is designed to fulfill its first priority, the protection of natural diversity in all its manifestations. Since many rare and endangered species have been exploited for their economic value, or are desirable



Jefferson Salamander
Ambystoma jeffersonianum

Shortn St
Acipenser br

versity Data Base

Environmental Intern
y Megan G. Rollins

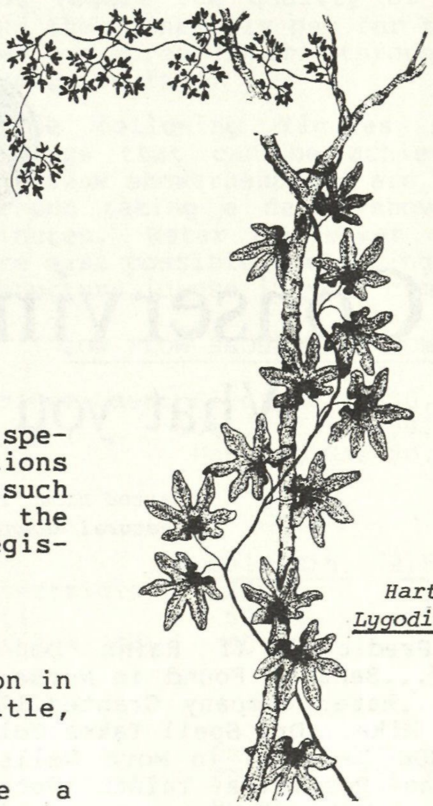
to collectors, specific information about what species are present on a site or species' locations within a site will not be given out. Further, such information has recently been made exempt from the Freedom of Information Act by the Connecticut Legislature.

To make a request of the Data Base:

1. Request information for a particular location in writing, including requestor's name, title, affiliation, address, and telephone number.
2. Make the request site-specific; include a U.S.G.S. topographical map with the area in question clearly marked.
3. Include a brief statement describing the nature of the proposed project and how the requested information will be used.
4. The requestor must agree not to publish, print, or otherwise divulge information provided by the Data Base for any purpose other than that clearly stated in the request.

The agreement regarding confidentiality is stringently upheld in order to respect the rights of individual property holders, agreements made to researchers in the course of the information's centralization, and the safety of the species themselves. In the case of an endangered species, the removal of even one individual from a population may affect its survival.

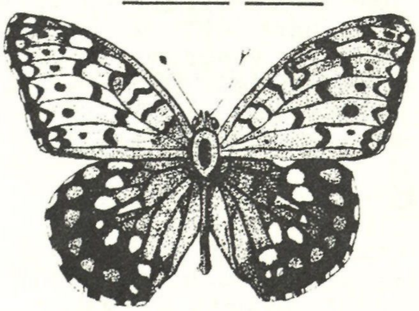
Publications on rare and endangered species, including the 1985 lists of plant and animal species of special concern, are available for purchase from: Connecticut Natural Diversity Data Base, 165 Capital Avenue, Room 563, Hartford: phone 566-7719. ■



Hartford Fern
Lygodium palmatum

Small
Whorled Pogonia
Isotria medeoloides

Regal Fritillary
Speyeria idalia



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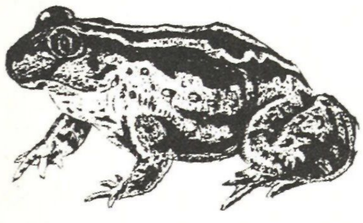


Spadefoot Toad
Scaphiopus holbrooki

Conserving Our Water

What you can do to help

Adapted from "You Can Conserve Water,"
a Natural Resources Center Publication

...Drought Predicted If Rains Don't Bring Relief...Benzene Found in Nursery School Well...Water Company Granted 178 Percent Rate Hike...Dry Spell Takes Toll on Wells...EDB Detected in More Wells; Cancer-causing Pesticide Taints Water for Thousands...Nation's Water Supply in Peril from Over-use, Contaminants...

These headlines and many more like them are real, a fact that is painfully apparent to a growing number of Connecticut residents. Scarcely a day goes by when we can't read about water issues in the newspapers or hear about them on radio and TV.

For decades, Connecticut residents have taken their water supplies for granted, using water as if the well would never fail, the reservoirs never run dry. But in just a few short years, we have begun to realize how serious the situation really is. This realization has led many of us to wonder what we as private citizens can do to influence the state's water supply situation.

The DEP is committed to water conservation as part of the state's overall strategy for ensuring that there are adequate supplies of high-quality water. In addition, many of the state's businesses and industries have been successful in reducing water use from 1/2 to 1/10 of former levels.

As individuals, we can also make a contribution. Each household can save significant amounts of water on a daily basis without any habit changes at all. Water conservation as used in this context means using only what you need and avoiding waste.

TOILETS

Surprisingly, the smallest room in the house -- the bathroom -- is the site of the largest amount of wasted water. A quick look at the pie-chart on Home Water Consumption reveals that the toilet is the largest single user of water in the home, accounting for almost 40 percent of total use. It also offers a large potential for savings which are easily realized and completely painless. Conventional toilets use from four to seven gallons of water per flush, yet studies have shown that it actually takes only 3 1/2 gallons per flush to effectively dispose of wastes.

Tank inserts can be used to reduce the amount of water your conventional toilet uses for each flush. Two of the more popular methods are listed below. Both are very inexpensive and easy to implement, even for first-time do-it-yourselfers.

Plastic Bottles: Cut off the top of a plastic bottle, fill with water, and place rocks in the bottom to hold it securely in place inside the tank. Place the bottle in the tank, making sure it isn't too close to the fixtures -- if it is, it may interfere with the operation of the toilet. The water saved will be equal to the volume of the bottle.

Flush Dams: These devices essentially block off a section of the tank so that the water behind the dam is saved. The dams cost between $5 and $10 and can save up to three gallons per flush.

When replacement of your toilet is necessary, install one of the water-saving models. Water-conserving toilets are widely available today. They look the same as conventional toilets and are about the same price. You can make an important contribution just by making an informed choice in replacement of your old plumbing fixtures.

SHOWERS

Showering and bathing are the next largest use of water within the home, accounting for more than 30 percent of the total. There are flow-control devices available which fit into the supply line to reduce the amount of water emitted from existing showers and faucets. While these are the least expensive option, use of this type of device is not recommended. Several studies show a low level of satisfaction with shower performance after installation of a restrictive device. In this case, investing in the proper hardware really pays off.

Replace the existing shower head with a water-saving model specifically designed to deliver 2 1/2 gallons per minute. Saver shower heads are widely available for about $15 each, they do not reduce the quality of the shower, and they generally pay for themselves in two to three months through water and energy savings.

Home Water Consumption

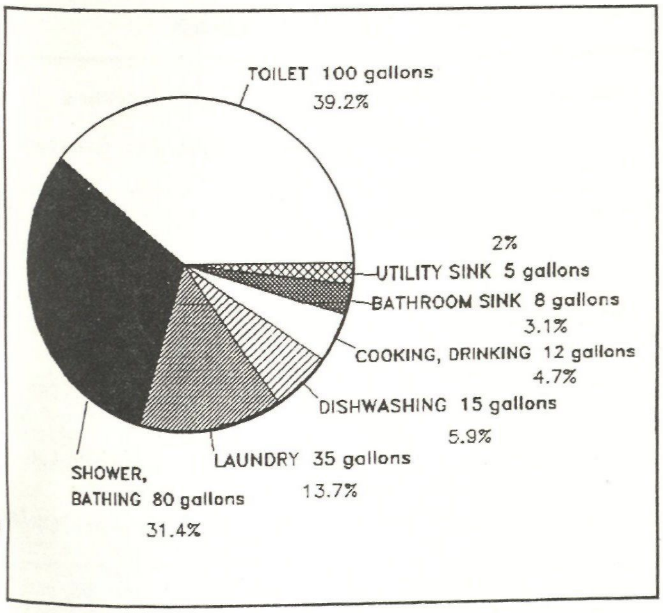


Figure 1. Breakdown of the 255-gallon average daily water consumption of a family of four.

The following figures show energy savings that can be achieved using a low-flow showerhead and are based on one person taking a daily shower for five minutes. Water and sewer cost savings are also possible, depending on the rate structure in use in your community.

LOW FLOW SHOWERHEAD COMPARISON

Prices Used:		
	Electricity	$0.09/KWH
	Oil	$0.95/gallon
	Natural Gas	$0.01/CF

COSTS

	5 Gal./Min.	2.5 gal./min.
Electricity	$0.33	$0.16
Oil	$0.11	$0.05
Natural Gas	$0.19	$0.09

SAVINGS

	Daily	Monthly	Yearly
Electricity	$0.17	$5.17	$62.05
Oil	$0.06	$1.82	$21.90
Natural Gas	$0.10	$3.04	$36.50

These figures can be adjusted depending upon the number of people in your household, how often they shower, and how long they shower.

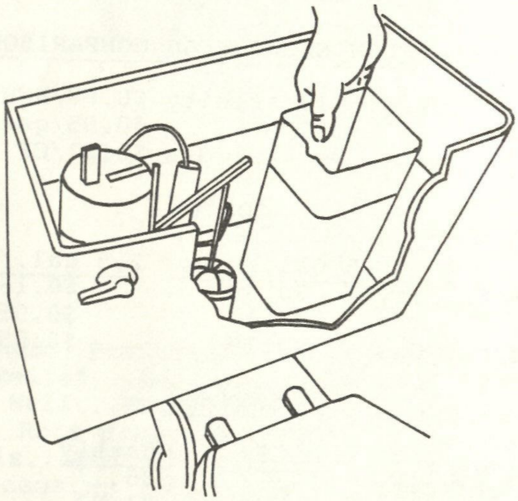
There is also potential for saving water at all faucets in the house. There are many different devices available to decrease the amount of water passing through the faucet, but again investment in quality hardware really pays off -- both in savings and in the level of satisfaction with faucet performance. One device to consider is the faucet aerator, which limits flows to 2 1/2 gallons per minute. This device combines air with the water as it is leaving the faucet, considerably reducing the amount of water that is used. Faucet aerators also reduce splashing.

MAINTENANCE

Proper maintenance of plumbing fixtures can also save significant amounts of water. Figure 2 illustrates how much water a leak can waste. As you can see, it sure adds up! Most leaks are commonly associated with toilets and faucets. These fixtures should all be checked at least twice a year.

Your water meter is a good instrument for detecting water leaks in your home.

For leak detection, turn everything off carefully so no water is being used anywhere in the house or outside. Then look at the dial of your water meter and note the position of the red hand. After about 30 minutes, check the position of the red hand again. If it hasn't moved, you have a relatively water-tight home. If it has moved, you should start checking faucets, hose connections, or the toilet.



Tank inserts are the most widely used method to reduce the amount of water used by a conventional toilet.

To check your toilet for leaks, put some food color into the tank and refrain from flushing for an hour or so. If the coloring appears in the bowl, the tank is leaking. If you find a leak, there are several likely causes. Check the flush valve at the bottom of the tank; the ball or stopper that controls water-flow into the bowl may be worn or deteriorated; or the metal valve seat may be corroded or damaged, resulting in a poor seal. Cleaning the ring-shaped seat with fine steel wool or fine emery cloth will sometimes improve the seal.

Also check to be sure that the ball stopper is seated properly. If not, the guide rod may be out of alignment, something a simple readjustment may correct. If adjustments and cleaning don't stop the leak, replacement parts are available, and helpful how-to advice should be included in most household do-it-yourself books.

Most faucet leaks are caused by worn-out washers, o-rings, or other seals. If any of your faucets drip even after being firmly turned off, take the faucet apart (after you shut off the water supply to the sink, of course!) and replace the worn-out part.

APPLIANCES

The two major appliances in the home which use water are the clothes washer and the dishwasher. Water requirements for the clothes washer range between 38 and 69 gallons per cycle. Dishwasher requirements vary from a low of 12 to a high of 18 gallons per cycle.

The amount of water consumed can be reduced through careful use of these machines. Run the clothes washer only when there is a full load. Use the variable control knob and suds saver if there is one on your machine.

The dishwasher should also be run only when there is a full load. If the dishes must be rinsed before putting them in the dishwasher, rinse them in ponded water. When replacing appliances, consider purchasing water-saving models.

OUTDOORS

Significant water savings are possible through careful use of water outdoors. For example, use a bucket of water and a spray nozzle on the hose instead of running water while washing the car; check outdoor faucets to make sure they are shut off tightly and that there are no leaks; sweep sidewalks and driveways instead of hosing them down.

For information on other ways you can conserve water, contact: Natural Resources Center, 165 Capitol Ave., Room 553, Hartford, CT 06106 or call 566-3540. ■

Loss from Leaks

Water loss in gallons at 50 lbs. pressure

Size of Leak	Loss Per Day	Loss Per Quarter
Dripping faucet	15	1,350
1/32" opening	264	23.760
1/16" opening	943	84,870
1/8" opening	3,806	342,540
1/4" opening	15,337	1,370,400
1/2" opening	60,900	5,481,000

Figure 2. Loss of water from leaks can be considerable. The elimination of these leaks will help to conserve our water supply.

This entire wing was the former South Reading Room when the Wilbur Cross Building was the University of Connecticut library. It is the future home of the Museum of Natural History.

A Permanent Record of Our Natural Heritage

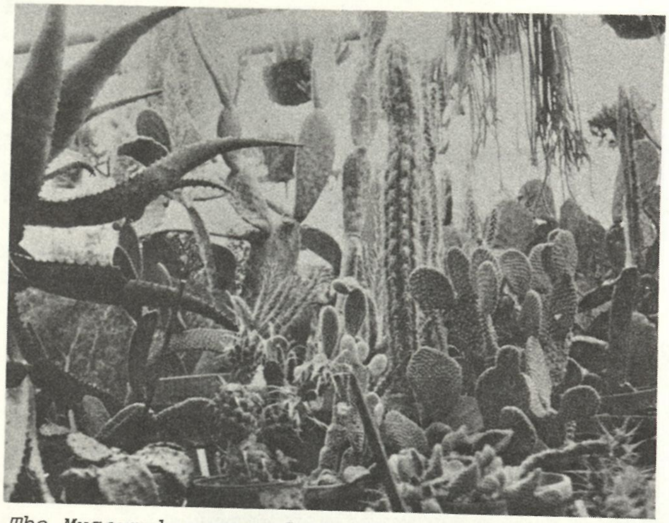
Connecticut's New Museum of Natural History

By Patricia Dubos
Administrative Assistant, Museum of Natural History
Photos Courtesy of Museum of Natural History

Human beings are by nature curious and attracted to beautiful and strange objects. People have gathered objects since the beginning of time and used them to decorate their caves, homes, or bodies. In the 1700s and 1800s, people in the United States often had "curiosity cabinets" in their parlors to display birds, minerals, and other specimens. Such "curiosity cabinets" were the start of some museums. As collections have grown, they have become increasingly important for describing our living environment and how we must act in a manner to preserve it. Museum collections help define who we are and how human cultures have influenced us.

History of Connecticut's Museum of Natural History

In the late 1800s one such collection of birds and animals in a room at the Agricultural College at Storrs marked the beginnings of what was to become the Museum of Natural History. Professor Koontz, who taught the second ornithology course in the U.S., was appointed curator. Under Dr. R.M. Wetzel in 1949, the vertebrate collections were reorganized. Simultaneously, at other locations on campus, invertebrate, geological, archaeological, anthropological, and botanical collections were growing. In



The Museum has one of the finest cactus collections in New England.

1982, with the approval of the Board of Trustees, these various collections became united in name under the Museum of Natural History, although they are still physically scattered among eight buildings on campus.

The Museum as an Active Concept

To most people, a museum is a building. But it is more important to think of a museum in terms of people and the active programs that are constantly changing. In addition to assembling and cataloging collections and doing research on those materials, there is a vital need to share this knowledge with all the people of Connecticut. It is only through an educated understanding of the richness of our natural environment that we will preserve for future generations what presently exists and historically forms our roots. This important goal is fostered by two of the Museum's programs -- the Migratory Exhibits and the Speakers Bureau.

The Migratory Exhibits -- the first program of its kind by a Connecticut museum -- is now being tested in the Hartford school system. The topics are: "Courtship and Reproduction of Frogs," "Edible and Poisonous Mushrooms of Connecticut," "Connecticut Orchids," "Poisonous Snakes of Connecticut and their Look-alikes," and "Cave Formations." Each exhibit consists of 10 to 20 labelled photographs or original water color paintings. A written text provides background information, a bibliography, and suggestions for individual activities.

Future exhibits will incorporate more specimens and other audiovisual materials. The Museum has some two million specimens which have never been seen by the public. Although it is impractical to loan the walrus skeleton, there a many thousands of specimens which can be made into interesting Migratory Exhibits. It is felt that such exhibits can update and enhance science backgrounds for the children of the state without further burdening the teachers.

In a similar manner, the Speakers Bureau was developed to reach adult audiences interested in natural history topics. The 80 talks by 29 speakers are available to any interested group at minimal cost. "Plumage Puzzles in Birds of Southern New England" is one presentation by Dr. George A. Clark, State Ornithologist and Professor of Biology at The University of Connecticut. "Endangered Species of Connecticut and their Habitats" has been one of the most popular presentations. It is given by Mr. Leslie J. Mehrhoff, State Biologist for the Geological & Natural Historical Survey, of the DEP. Although the speakers are specialists in their areas, their talks are geared to a nonprofessional adult audience.

The Museum as a Place

The Museum presently has several displa areas on campus. With 2,000 species o plants, including 500 varieties of orchids and the largest cactus collection in New England, the Life Sciences Greenhouses on North Eagleville Road in Storrs, behind the Torrey Life Sciences building, is the current major attraction to museum visitors. It is open Monday to Friday (8:00 am to 4:00 pm) for self-guided tours and group tours (by appointment only).

On the third floor of Life Sciences there is a traditional collection of mounted zoologicial specimens. This has been an attractive spot for visiting school children.

Visits can be arranged to the Entomological Collection, also on the third floor, by calling the Collections Manager, Jane O'Donnell (486-4457). This collection has 150,000 pinned specimens. Besides a strong regional representation, there are many exotic butterflies and moths which are now endangered species.

A Place for Preservation of our Natural Heritage

As the reputation of the Museum grows, individuals with private collections and smaller institutions are seeking it out as a public repository for their materials. A collection made over a 15-year period by Paul Griswold Howes from a half-acre woodlot in Connecticut was a recent addition. That collection served as the basis for his book, Life in a Miniwood Community. In 1982, the Museum was given the John Henry Mineral Collection, a very comprehensive collection of thousands of minerals from Connecticut. It also received three collections of mollusk shells and a small insect collection in 1983.

In summer of 1984, Mr. F. Eugene Allen, of Winchester, New Hampshire, agreed to give and sell to the Museum all the collections in his small private museum. This includes a large number of hawks and owls which are now illegal to collect. Mr. Allen's beautiful mounted birds will be a major attraction as soon as we can get them on display.

Another essential role of a museum is research. Although the Museum is not responsible for research funding, it does disseminate the results of some of this research to the people of Connecticut. The mammal collection of 24,000 specimens is ranked second after Harvard in New England and 20th in size for all mammal collections in the U.S. It is the best collection of New England mammals in the U.S. The ornithology collection is the repository site for the Connecticut Breeding Bird Atlas. Dr. George Clark, its curator, is the State Ornithologist. The collection ranks 20th in size internationally; only six U.S. universities have larger ones. Although these collections are basically for research and not display, this element of scientific inquiry forms the necessary backbone for the Museum as an educational tool for the people of Connecticut.

In the summer of 1983, the largest fish ever landed in Connecticut was obtained by the Museum. It will form the centerpiece for the Museum's first permanent exhibit on the ground floor of the Jorgensen Auditorium. Meeting -- at eye level -- a fish which is seven feet tall and 15 feet long is guaranteed to impress visitors.

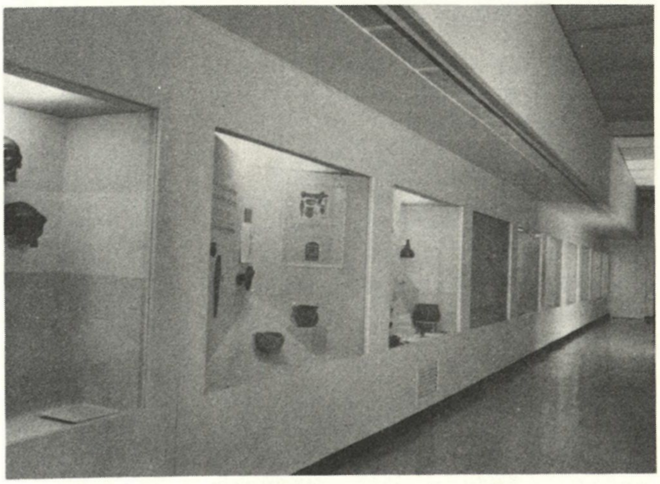
Future Displays

The University has given to the Museum the former South Reading Room of the Wilbur Cross Building. This 4,000 square-foot area with 30-foot ceilings is ideally suited for a museum. Within the next few years, with funding from the capital fund drive as well as individual contributions, the Museum plans to develop an exhibit area as well as a library and Discovery Center or classroom.

Membership in the Museum

Development of this new expanded Museum during the past two years has been accomplished solely from memberships and gifts, including a few contributions from corporations and foundations. The cost of projected exhibits and collection acquisitions will exceed income unless membership is greatly increased and state appropriation is received. In the current session of the legislature Senator Eric Benson, Co-chairman of the Environment Committee, has introduced Senate Bill 341 to establish the Museum as the State Museum of Natural History and to provide operating funds.

How do you benefit from membership? Your membership card entitles you to free admission to 37 museums across the United States. Those museums jointly publish the Explorer magazine, an award-winning quarterly magazine sent to all members. You will also receive a quarterly newsletter to keep you informed about Museum activities and related programs in Connecticut. Invitations to Museum previews, tours and day trips will be sent to you. Currently the Explorer museums are jointly sponsoring four upcoming trips: In April, there will be a voyage to China; in May and June, a tour of the Andes, Amazon, and Galapagos Islands; in May, a visit to the Circle-Z Ranch in Southern Arizona; and, in November, a trek to the Himalayas. For further information on membership and trips, write or telephone the Museum of Natural History, 486-4460 or 486-4194, University of Connecticut, U-43, Storrs, CT 06268. ■



This area in Jorgenson Building will feature the great white shark and will be the first permanent display in the Museum.

The Bulletin Board

Harkness Music Festival

Last year a new classical music festival premiered at Harkness Memorial State Park in Waterford. For 1985, Summer Music, Inc., has expanded its series to include six concerts beginning on Saturday, July 13.

The schedule is as follows:

July 13 - Jaime Laredo, violinist, and the Harkness Festival Chamber Orchestra in an all-Mozart evening.

July 20 - Mendelsson String Quartet, winners of the Young Concert Artist Award, 1984.

July 27 - G.F. Handel's "The Messiah," with chorus, soloists, and the Festival Orchestra under the direction of Johannes Somary.

August 3 - "Summer Serenades," with the Festival Chamber Orchestra and the music of Brahms and Tchaikovsky.

August 10 - The Waverly Consort, internationally-acclaimed masters of music, in an evening of Renaissance Romance.

August 13 - In Celebration of Bach and Handel: A 300th Birthday Party.

All performances begin at 8:00 p.m. Seating under the tent is $12.50 per person, while lawn admission is $5. Subscriptions are available at discount rates.

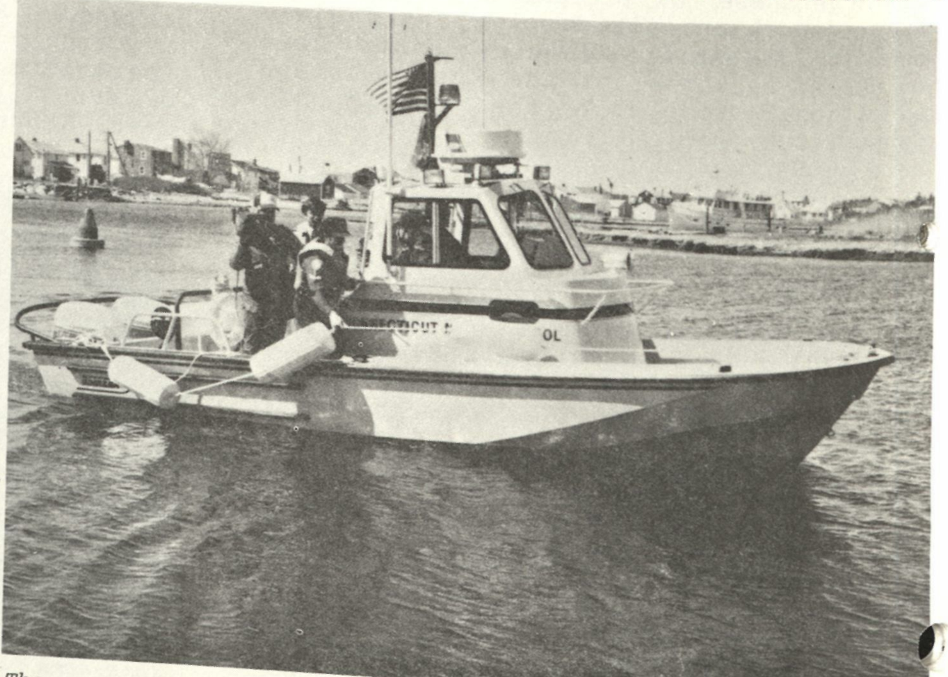
Tickets are on sale now for all events. For more information, contact Summer Music, Inc., 107 Nameaug Avenue, New London, CT 06320, (203) 442-9199. ■

DEP Marine Patrol Adds New Boat

The Marine Patrol Division of the Bureau of Law Enforcement, Department of Environmental Protection, launched and demonstrated a newly-acquired patrol boat. The new boat was designed and built by the Commercial Products Division of the Boston Whaler Company. The 25-foot boat is powered by twin 155-horsepower Evinrude outboard motors.

"This one-of-a-kind vessel replaces an older patrol boat that has been in service since 1974," says DEP Deputy Commissioner Dennis DeCarli. "With its special, heavy-duty, all-weather pilot house and heavy-duty towing stanchion, it will service the boating safety and marine fisheries enforcement needs of the lower Connecticut River and a large portion of Long Island Sound. Although the hull design of this vessel is not new," he added, "this is the first time Boston Whaler has produced a boat incorporating this hull design with the special pilot house."

"The new patrol boat," says Major R.W. Dill Commanding Officer of the Boating/Marine Fisheries Enforcement Division, "will expand the marine patrol's capabilities in varying weather, visibility, and sea conditions. It is our hope that these expanded capabilities will help us to better serve the boaters of our state. We intend to have this vessel operate from the newly acquired facility on t Connecticut River in Old Lyme which will be the department headquarters for Boating Safety, Marine Fisheries Enforcement, and Marine Fisheries Research." ■



William Delaney

The new patrol boat of DEP's Bureau of Law Enforcement is powered by twin 155-horsepower outboard motors.

Goodwin State Forest

June 8, Saturday, 1 p.m. -- Start an Insect Collection. A family program leading to a fascinating hobby. Beginner's collecting kits will be available at cost. Led by Jan O'Donnell, entomologist from University of Connecticut's Museum of Natural History. Program is free, but please call ahead to register if you want a kit: 455-9534.

June 9, Sunday, Noon to 5 p.m. -- Join us at the Earth Fair sponsored by the Connecticut Audubon Society and the Sierra Club at Holland Brook Center in Glastonbury. Walks, talks, displays, puppets, music, balloons, more! All exhibits and programs are free.

June 30, Sunday, 2 p.m. -- Mystery Walk and Picnic. We won't tell you where we're heading for this one, but you can be sure it will be easy, interesting, and enjoyable. Planned by the Sierra Club to accommodate little legs and old ones, and you're invited! Bring a bag lunch.

July 14, Sunday, 2 p.m. -- Un Paseo por el Bosque (A Nature Walk in Spanish). All Spanish-speaking persons, whether beginners or old hands, are invited to this unique walk with Alberto Mimo, DEP naturalist.

You may receive the July-August program schedule as soon as it is ready by sending a self-addressed, stamped, business-size envelope to Lois Kelley at the Conservation Center, RFD #1, Box 100, N. Windham, CT 06256. For further information about any program, call (203) 455-9534. ■

Groundwater Protection Workshop

On June 14, 1985, at Eno Hall in Simsbury, Connecticut, the Farmington River Watershed Association is sponsoring a Groundwater Protection Workshop. The workshop's emphasis will be to develop a framework from which towns can design their own programs.

Topics to be covered include an inventory of available technical information, an introduction to household hazardous waste programs, and a walk through DEP'S recent publication: Protecting Connecticut's Groundwater: A Guide to Groundwater Protection for Local Officials. The discussion of the guide will include a review of how each town can most effectively implement these guidelines.

The Farmington River Watershed Association believes that developing local programs is the key to protecting Connecticut's groundwater supply. For more information, contact FRWA at 678-1241. ■

Correction

The graphic illustration which accompanied the article "Down the drain -- septic systems may be hazardous to your health," which appeared in the Citizens' Bulletin, Volume 11, Number 5, should have been acknowledged as follows: Homeowner's Guide to Wells and Septic Systems, Copyright 1981, Farmington Valley Health District and Town of Avon, CT, and Elisabeth King. ■

Conservation Award

The 1985 White Memorial Foundation Conservation Award was presented to Gretel B. Bolles of Washington at the Conservation Center's Annual Meeting in Litchfield on May 18th.

The award, a bronze sculpture of a beaver, the Foundation's symbol, is the work of artist Peggy Reventlow of New York and Litchfield.

In presenting the award, Foundation Trustee S. Dillon Ripley, retired secretary of the Smithsonian Institution, cited Mrs. Bolles as the person most responsible for making the Conservation Center's library one of the outstanding nature libraries in the state.

Mrs. Bolles is the twentieth recipient of the award which is given each year to a person or organization for significant contributions to the field of natural resource conservation. ■

Letters to the Editor

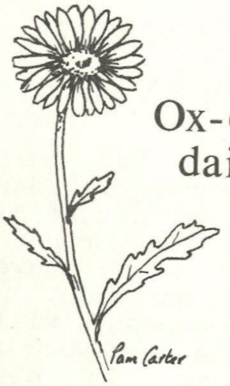
In the coming months, the Citizens' Bulletin will introduce a new "Letters to the Editor" section. Readers are invited to share their views on issues of specific or general environmental interest. Letters should be approximately 250 words in length and will be subject to condensation. ■

Trailside Botanizer

By G. Winston Carter

Through the eyes of the nature lover, there is a certain thrill to seeing a snow-white field of ox-eye daisies. Understandably, a farmer may not react in the same way. He may consider the daisy in the same light as weeds in his garden. When fields are taken over by such species as ox-eye daisy, hawkweed, and black-eyed Susan, they are crowding out the grasses and will make poor hay.

The ox-eye daisy is misnamed. It is not a daisy but a chrysanthemum. The word daisy is derived from two Anglo-Saxon words, "doegis" and "eage," which together mean "day's eye." This name was originally applied to the common English daisy (Bellis perennis), a true daisy, which closes at night and



Ox-eye daisy

opens when the sun comes up. Like the sun, it was thought of as a day's eye. Others believed the center of the flower resembled an ox's eye.

Extremely widespread, the ox-eye daisy appears commonly in fields and waste places throughout most of the United States. It was brought here originally by the early settlers when they had trouble growing their common English daisy.

The blooming time for ox-eye daisy is from May to October. It has a composite flower arranged in a head. This consists of many tiny flowers or florets. The white petals are the ray flower with pistil only. The yellow disc flower in the center consists of both staminate and pistillate flowers. Each flower is surrounded by a five-parted corolla. The leaves are small and narrow, often with many tiny lobes.

Historically, preparations from the leaves of the ox-eye daisy were used for burns, running sores, and bruises. Another common name was bruisewort because of its medical use.

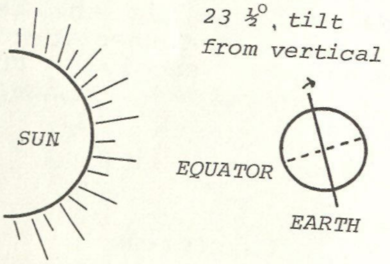
© *1985, G. Winston Carter*

The Night Sky

By Francine Jackson
Director, Gengras Planetarium

For those of you who wake up early in the morning, you might keep 6:44 a.m. in mind on June 21. At that instant, summer begins.

If you have an east-facing bedroom window, you are probably aware that the sun doesn't rise at the same point on the horizon each morning. This happens because the Earth is tilted 23 1/2 degrees with respect to the sun. As the Earth travels around the sun, the angle at which we perceive the sun changes. In the course of a year, the sun's apparent path changes 47 degrees. Here in the Northern Hemisphere, the Earth is tilted at its most extreme toward the sun on the first day of summer. The sun rises at its most northeasterly position on the horizon, travels in its highest path across the sky, and sets at its most northwesterly point.



Earth is tilted in northernmost position: first day of summer.

You can actually see this by going out each day around 1:00 p.m. EDT (noon EST) and facing north. Looking down, notice the length of the shadow you've made. The higher the sun appears in the sky, the shorter the shadow will be. On June 21, the first day of summer, the sun will be at its maximum height, and your shadow will be at its stubbiest. As in life, the sun will now appear to go downhill, or southward, every day until the first day of winter, when it will be at its lowest noontime position, making your shadow the longest of the year.

As the Earth revolves around the sun, the path that it takes is not a perfect circle. Instead it is an ellipse, with the greatest distance between the Earth and the sun being 91 million miles. Interestingly, we in the North experience summer when the Earth is at its greatest distance from the sun. However, that doesn't mean the Southern Hemisphere will have warmer summers. In fact, just the opposite is true. ■

Book Review

A Modern Classic on the Wolf

By Catey Sullivan, Environmental Intern

Of Wolves and Men. By Barry H. Lopez, 1978. Charles Scribners' Sons, 309 pp. $12.95 paperback. (Ed. note: Originally published in 1978, this book was recently rereleased in paperback.)

It is not so easy to capture the essence of Barry Holstun Lopez's Of Wolves and Men. This is a book of facts which reads as fiction; it is a mixture of poetry, mythology, folklore, superstitions, intuitions, statistics, and short stories. Of Wolves and Men shows its readers the wolf from seemingly every possible angle. Lopez presents the wolf through the eyes of the scientist, the bounty hunter, the Eskimo, the fur trapper, the American Indian, the naturalist, the medieval peasant, the Elizabethan dramatist, and the 20th century sheep farmer. If the reader is not particularly interested in or involved with wolves when he starts this book, he will be by the end of page one.

Lopez shows the wolf as a creature of paradox, an elusive animal which defies consistent description. "You can look at a gray wolf standing in the snow and not see him at all," says Lopez. "Sometimes even the Eskimos can't see them, which causes the Eskimos to smile." Lopez points out that what is known about wolves is terribly small in proportion to what is not known.

"The Connecticut Department of Environmental Protection is an equal opportunity agency that provides services, facilities and employment opportunities without regard to race, color, religion, age, sex, physical handicap, national origin, ancestry, marital status or political beliefs."

Lopez gives equal space to the wolf as perceived by trappers and sheep farmers. He acknowledges that dead wolves were essential to the livelihood of the former and live wolves a true menace to the latter. Lopez points out the devastation a modern-day sheep farmer, subsisting on a limited income, can suffer from just one wolf attack on a sheep pen. Lopez also points out that in the era when wolf pelts were both numerous and in great demand, a trapper might make a good living for himself without unduly disturbing any wolf population.

But, Lopez continues, the killing of wolves has extended far beyond what is necessary for a man to make a living.

"People didn't just kill wolves; they tortured them," says Lopez. "They set wolves on fire and tore their jaws out and cut their achilles tendons and turned dogs loose on them. In Minnesota in the 1970s, people choked the Eastern timber wolves to death in snares to show their contempt for the animal's designation as an endangered species."

Lopez cites the beliefs of medieval minds as also contributing to later mistrust of wolves. "Anything that threatened a peasant's precarious life-style was known as 'the wolf.'" This concept of the wolf included famine, tyrannous landlords, and the Black Death. Another negative association rose during the Spanish Inquisition, when the Roman Catholic Church equated wolves with witches, warlocks, heretics, and devils.

Of Wolves and Men presents a wolf of many facets and personalities. Lopez contrasts the wolf of mythology and legend with the wolf as he has been perceived by men in direct contact with him. Of Wolves and Men is not a definitive catalogue of the nature and behavior of wolves; this is not the intention of the book. What this book does do, however, is succeed in intriguing its readers and in providing them with what is known for certain of wolves, what has been conjectured about wolves, and what may become of wolves in the future. ■

Endnote

When the buffalo are
all slaughtered, the
wild horses all
tamed, the secret
corners of the forest heavy with the
scent of many men,
and the view of the
ripe hills blotted
by talking wires,
where is the thicket? Gone. Where is
the eagle? Gone.

"This Earth is Sacred"
Letter from Chief Sealth to President Franklin Pierce (1855)

Quoted in Environmental Ethics
Albert J. Fritsch
Anchor Books, 1980

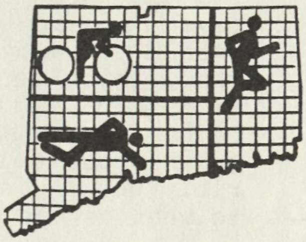
OPERATION TIP
Report violations of
all wildlife and fisheries laws
through Connecticut's
24 hour hotline
1-800-842-HELP

REWARDS Cash rewards ranging from $25 to $300.00 and more will be paid for specific information leading to arrests for certain specified offenses. Caller can remain anonymous. During the program's first three months of operation, 46 arrests were made from TIPs received.

The program is supported by tax deductable contributions. Make checks payable to *'Connecticut Wildlife Federation Endowment Fund/TIP'* and mail to: **CWF, 27 Washington St., Middletown, CT 06457.** For more information call **203-566-3980.**

Enclosed is my contribution of:
☐**$5** ☐**$10** ☐**$25** ☐**$** __________

Name ____
Organization __________________________________
Address ______________________________________
City, state, zip ______________________________



CONNECTICUT 350 TRIATHLON

8 AM, SATURDAY
AUGUST 24, 1985

SEASIDE PARK,
BRIDGEPORT, CT

2k SWIM 38k BIKE 10k RUN

For applications, send SASE, to "Connecticut 350 Triathlon," CT DEP, Rm. 247, 165 Capitol Ave., Hartford, CT 06106; call (203) 566-5026 for information.

Enter by August 1, 1985. No post entries.
Tax-deductible donation, $25.

ORGANIZERS: City of Bridgeport; Friends of Seaside Park; Dept. of Environmental Protection.

DEP Citizens' Bulletin
State of Connecticut
Department of Environmental Protection
State Office Building
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